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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,621	10/14/2003	Richard Eugene Anderson	BUR920030043US1	2620

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EXAMINER	
RIYAMI, ABDULLA A	

ART UNIT	PAPER NUMBER
2609	

MAIL DATE	DELIVERY MODE
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/605,621

**Applicant(s)**

ANDERSON ET AL.

**Examiner**

Abdullah Riyami

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

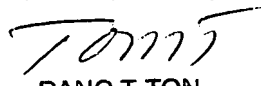
### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

  
DANG T. TON  
SUPERVISORY PATENT EXAMINER

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>14 October 2003</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "block 30" (paragraph 19, line 5), "block 31" (paragraph 19, line 5), "block" 32 (paragraph 20, line 3), "block 33" (paragraph 21, line 33), "block 34" (paragraph 22, line 6) "block 35" (paragraph 23, line 4) and "block 36" (paragraph 24, line 5).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37

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CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

### ***Specification***

3. The disclosure is objected to because of the following informalities: “an translation engine” (paragraph 21, line 4). It is suggested to change “an” to –a- “onin a manner” (paragraph 25, line 5). It is suggested to change “onin” to –in-. Appropriate correction is required.

### ***Claim Objections***

4. Claims 5, and 8 –15 are objected to under 37 CFR 1.75 because of the following informalities:

In claim 5, line 2, the occurrence of “a new header” seems to refer back to “a new header” in claim 1; if this is true, it is suggested to change “a new header” to --said new header--. Similar problem exists in claims 10, line 2 and claim 15, line 3.

Also in claim 5, line 3, the occurrence of “a second network” seems to refer back to “a second network” in claim 1; if this is true, it is suggested to change “a second network” to --said second network--. Similar problem exists in claims 10, line 3 and claim 15, line 4.

In claim 8, line 1, the occurrence of “claim 11” seems to refer back to “claim 6” and hence “claim 8” is not preceding “claim 11”. If this is true, it is suggested to

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change "claim 11" to --claim 6--. Similar problem exists in claims 9, line 1 and claim 10, line 1.

In claim 11, lines 1-2, it is suggested to change "computer usable medium" to --computer readable medium--.

Also in claim 11, line 7, the occurrence of "program code" seems to refer back to "program code" in line 5. If this is true, it is suggested to change "program code" to --said program code--. Similar problem exists in line 10, 14, 19, 21, 24, claim 14, line 3 and claim 15, line 3.

Claims 12-15 are objected since they depend from claim 11.

Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 11 - 15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In claims 11 - 15, lines 1-2, the "computer usable medium" is defined as an analog or digital signal (communilink, see paragraph 0026). Signals, per se, are non-statutory subject matter.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 2, 4 - 7, and 9 -12 are rejected under 35 U.S.C. 102(e) as being anticipated by Yao et al. (11/138,584).

In claim 1, Yao et al. discloses a method for translating data packets from one network protocol to another, comprising: constructing a plurality of translation templates (see paragraph 51, line 21); loading plurality of translation templates into a translation template cache (see paragraph 51, line 21); in response to a data packet (see paragraph 51, line 1) from a first network (see paragraph 51, line 11) arriving at a translation router (see paragraph 31, line 1 and figure 10, block 230), selecting (see paragraph 31, lines 8 –22) an appropriate one of plurality of translation templates from translation template cache according to the translation context (see paragraph 51, line 21) of data packet; generating a new header (see paragraph 51, lines 21-23) for transmission into a second network (see paragraph 51, line 3) by reading header fields (see paragraph 51, lines 21-23) of data packet from first network along with appropriate one of plurality of translation templates in translation template cache; removing data payload (see

paragraph 51, lines 21-23) of data packet from the first network from its header (see paragraph 51, lines 21-23); appending data payload (see paragraph 51, lines 21-23) of data packet to constructed header for second network; and transmitting the data packet to second network.

In claim 2, Yao et al. discloses a method where there is a plurality of translation templates including translation templates for Fibre Channel (see paragraph 31, lines 1-4), translation templates for Ethernet (see paragraph 31, lines 1-4), and translation templates for InfiniBand (see paragraph 31, lines 1-4).

In claim 4, Yao et al. discloses a method for selecting an appropriate one of plurality of translation templates (see paragraph 31, lines 8 –22) from translation template cache (see paragraph 51, line 21) according to an incoming port number (see paragraph 27, lines 11-15) from which data packet (see paragraph 51, line 1) comes.

In claim 5, Yao et al. discloses a method for generating a new header (see paragraph 51, lines 21-23) for transmission into a second network (see paragraph 51, line 3) according to an outgoing port number (see paragraph 27, lines 11-15) to which data packet (see paragraph 51, line 1) is to be transmitted.

In claim 6, Yao et al. discloses an apparatus for translating data packets from one network protocol to another, comprising: constructing a plurality of translation templates (see paragraph 51, line 21); loading plurality of translation templates into a translation template cache (see paragraph 51, line 21); in response to a

data packet (see paragraph 51, line 1) from a first network (see paragraph 51, line 11) arriving at a translation router (see paragraph 31, line 1 and figure 10, block 230), selecting (see paragraph 31, lines 8 –22) an appropriate one of plurality of translation templates from translation template cache according to the translation context (see paragraph 51, line 21) of data packet; generating a new header (see paragraph 51, lines 21-23) for transmission into a second network (see paragraph 51, line 3) by reading header fields (see paragraph 51, line 3)) of data packet from first network along with appropriate one of plurality of translation templates in translation template cache; removing data payload (see paragraph 51, lines 21-23) of data packet from the first network from its header (see paragraph 51, lines 21-23); appending data payload (see paragraph 51, lines 21-23) of data packet to constructed header for second network; and transmitting the data packet to second network.

In claim 7, Yao et al. discloses an apparatus consisting of a plurality of translation templates including translation templates for Fibre Channel (see paragraph 31, lines 1-4), translation templates for Ethernet (see paragraph 31, lines 1-4), and translation templates for InfiniBand (see paragraph 31, lines 1-4).

In claim 9, Yao et al. discloses an apparatus for selecting an appropriate one of plurality of translation templates (see paragraph 31, lines 8 –22) from translation template cache (see paragraph 51, line 21) according to an incoming port number (see paragraph 27, lines 11-15) from which data packet (see paragraph 51, line 1) comes.



In claim 10, Yao et al. discloses an apparatus for generating a new header (see paragraph 51, lines 21-23) for transmission into a second network (see paragraph 51, line 3) according to an outgoing port number (see paragraph 27, lines 11-15) to which data packet (see paragraph 51, line 1) is to be transmitted.

In claim 11, Yao et al. discloses a computer program product (see paragraph 51, lines 23-27) residing on a computer usable medium for translating data packets from one network protocol to another (see paragraph 51, lines 23-27), computer program product (see paragraph 51, lines 23-27) comprising: program code (see paragraph 51, lines 23-27) means for constructing a plurality of translation templates (see paragraph 51, line 21); program code means for loading translation templates (see paragraph 51, line 21) into a translation template cache (see paragraph 51, line 21); in response to a data packet from a first network (see paragraph 51, line 11) arriving into a translation router (see paragraph 31, line 1 and figure 10, block 230), program code means for selecting an appropriate translation template (see paragraph 31, lines 8 –22) from translation template cache (see paragraph 51, line 21) according to the translation context of data packet; program code means for generating a new header (see paragraph 51, lines 21-23) for transmission into a second network (see paragraph 51, line 3) by reading header fields (see paragraph 51, line 3) of data packet from the first network along with appropriate translation template in translation template cache; program code means for removing data payload

(see paragraph 51, lines 21-23) of data packet from first network from its header; program code means for appending data payload of data packet to constructed header (see paragraph 51, lines 21-23) for the second network; and program code (see paragraph 51, lines 23-27) means for transmitting data packet to the second network.

In claim 12, Yao et al. discloses a computer program product (see paragraph 51, lines 23-27) consisting of a plurality of translation templates having translation templates for Fibre Channel (see paragraph 31, lines 1-4), translation templates for Ethernet (see paragraph 31, lines 1-4), and translation templates for InfiniBand (see paragraph 31, lines 1-4).

In claim 14, Yao et al. discloses a computer program product (see paragraph 51, lines 23-27) having program code (see paragraph 51, lines 23-27) for selecting an appropriate one of plurality of translation templates (see paragraph 31, lines 8-22) from translation template cache (see paragraph 51, line 21) according to an incoming port number (see paragraph 27, lines 11-15) from which data packet (see paragraph 51, line 1) comes.

In claim 15, Yao et al. discloses a computer program product (see paragraph 51, lines 23-27) having program code (see paragraph 51, lines 23-27) for generating a new header (see paragraph 51, lines 21-23) for transmission into a second network (see paragraph 51, line 3) according to an outgoing port number (see paragraph 27, lines 11-15) to which data packet (see paragraph 51, line 1) is to be transmitted.

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***Claim Rejections - 35 USC § 103***

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 3, 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yao et al. (11/138,584) in view of Gazsi et al. (09/803,384).

In claims 3, 8 and 13 Yao et al. discloses a method, apparatus and computer program product for translating data packets from one network protocol to another, comprising: constructing a plurality of translation templates (see paragraph 51, line 21); loading plurality of translation templates into a translation template cache (see paragraph 51, line 21); in response to a data packet (see paragraph 51, line 1) from a first network (see paragraph 51, line 11) arriving at a translation router (see paragraph 31, line 1 and figure 10, block 230), selecting (see paragraph 31, lines 8 –22) an appropriate one of plurality of translation

templates from translation template cache according to the translation context (see paragraph 51, line 21) of data packet; generating a new header (see paragraph 51, lines 21-23) for transmission into a second network (see paragraph 51, line 3) by reading header fields (see paragraph 51, lines 21-23) of data packet from first network along with appropriate one of plurality of translation templates in translation template cache; removing data payload (see paragraph 51, lines 21-23) of data packet from the first network from its header (see paragraph 51, lines 21-23); appending data payload (see paragraph 51, lines 21-23) of data packet to constructed header for second network; and transmitting the data packet to second network.

In claim 3, 8 and 13 Yao discloses all of the subject matter of the claimed invention with the exception of the translation template cache being a dedicated on-chip memory.

Gazsi, from the same field of endeavor, teaches a translation router has data processing processors having a dedicated on-chip memory (see column 4, lines 3-9). Gazsi's dedicated memory (see column 4, lines 3-9) enables less processing time for the processors and a faster method for moving data to and from a storage device or between data networks, thus increasing the overall performance of the router.

Yao and Gazsi are analogous art because they are from the same fields of endeavor of translating data packets between different networks (see abstract, line 2) and separation of header and payload (see column 3, lines 56-61). At the

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time of the invention, it would have been obvious to a person of ordinary skill in the art to use Gazsi's dedicated memory (see column 4, lines 3-9) for use as a translation template cache in Yao's method, apparatus and computer program product for address forwarding for a computer network.

The motivation for using Gazsi's dedicated memory (see column 4, lines 3-9) would have been to have less processing time for the processors and having a faster method for moving data to and from a storage device or between data networks which increases the overall performance of the router.

### ***Conclusion***

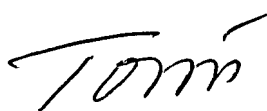
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dorsey et al. (US 20010033580 A1), Barry et al. (US 20030152076 A1), Latif et al. (US 6400730 B1), Michael et al. (US 7151780 B1), Laurence B. et al. (US 20040073703 A1), and Rasoul Mirzazadeh et al. (US 7209448 B2) are recited to show a method and apparatus for translating data packets from one network protocol to another.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdullah Riyami whose telephone number is (571) 270-3119. The examiner can normally be reached on Monday through Friday 7am-5pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on (571) 272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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A handwritten signature in black ink, appearing to read 'Dang T. Ton' in a cursive, stylized script.

DANG T. TON  
SUPERVISORY PATENT EXAMINER